

# TRAITE DE COOPERATION EN MATIERE DE BREVETS

## PCT

### RAPPORT D'EXAMEN PRELIMINAIRE INTERNATIONAL

(article 36 et règle 70 du PCT)

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Référence du dossier du déposant ou du mandataire	<b>POUR SUITE A DONNER</b> voir la notification de transmission du rapport d'examen préliminaire international (formulaire PCT/PEA/416)	
Demande internationale No. PCT/FR 03/03360	Date du dépôt international ( <i>jour/mois/année</i> ) 13.11.2003	Date de priorité ( <i>jour/mois/année</i> ) 19.11.2002
Classification internationale des brevets (CIB) ou à la fois classification nationale et CIB C22C38/54		
Déposant USINOR et al.		

1. Le présent rapport d'examen préliminaire international, établi par l'administration chargée de l'examen préliminaire international, est transmis au déposant conformément à l'article 36.



2. Ce RAPPORT comprend 4 feuilles, y compris la présente feuille de couverture.

- ☐ Il est accompagné d'ANNEXES, c'est-à-dire de feuilles de la description, des revendications ou des dessins qui ont été modifiées et qui servent de base au présent rapport ou de feuilles contenant des rectifications faites auprès de l'administration chargée de l'examen préliminaire international (voir la règle 70.16 et l'instruction 607 des Instructions administratives du PCT).

Ces annexes comprennent feuilles.

3. Le présent rapport contient des indications et les pages correspondantes relatives aux points suivants :

- I ☒ Base de l'opinion
- II ☐ Priorité
- III ☐ Absence de formulation d'opinion quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle
- IV ☐ Absence d'unité de l'invention
- V ☒ Déclaration motivée selon la règle 66.2(a)(ii) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration
- VI ☐ Certains documents cités
- VII ☐ Irrégularités dans la demande internationale
- VIII ☐ Observations relatives à la demande internationale

Date de présentation de la demande d'examen préliminaire internationale  10.05.2004	Date d'achèvement du présent rapport  12.08.2004
Nom et adresse postale de l'administration chargée de l'examen préliminaire international   Office européen des brevets D-80298 Munich Tél. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Fonctionnaire autorisé  Bureau, J-L  N° de téléphone +49 89 2399-8454  

## PCT/FR 03/03360

**RAPPORT D'EXAMEN  
PRÉLIMINAIRE INTERNATIONAL**

Demande internationale n° **PCT/FR 03/03360**

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6. Observations complémentaires, le cas échéant :

**V. Déclaration motivée selon l'article 35(2) quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration**

1. Déclaration

Nouveauté	Oui:	Revendications	1-11
	Non:	Revendications	
Activité inventive	Oui:	Revendications	1-11
	Non:	Revendications	
Possibilité d'application industrielle	Oui:	Revendications	1-11
	Non:	Revendications	

2. Citations et explications

**voir feuille séparée**

**Concernant le point V**

**Déclaration motivée quant à la nouveauté, l'activité inventive et la possibilité d'application industrielle; citations et explications à l'appui de cette déclaration**

Il est fait référence aux documents suivants :

D1: US-A-4 171 233

D2: WO 96/22396 A

D3: EP-A-0 881 306

D4: PATENT ABSTRACTS OF JAPAN vol. 018, no. 145 (C-1178), 10 mars 1994 & JP 05 320749 A

L'invention concerne une pièce en acier de construction soudable ayant une microstructure bainitique et/ou martensitique et dont la composition d'acier est choisie de manière à améliorer la trempabilité sans diminuer la soudabilité.

Bien que la composition d'acier selon la revendication 1 recoupe celles des aciers de construction divulgués par les documents D1 à D3, un tel recoupement correspond à une sélection étroite que l'homme du métier n'aurait pas adoptée à la lecture de ces documents. En effet, les exemples et modes de réalisation préférés donnés dans ces documents n'incitent pas à combiner les teneurs en Si et B revendiquées pour obtenir un bon compromis entre soudabilité et trempabilité (voir D1, colonne 5, Tableau, colonne 6 à colonne 8, colonne 10, Tableau IV; D2, pages 8 à 11; D3, page 4, lignes 2-43, page 5, exemples). Ces documents ne se rapportent pas non plus à la question de la soudabilité d'aciers à 0,40-0,50% de carbone et ne divulguent pas les procédés de fabrication selon les revendications 6 et 10.

L'objet des revendications 1, 6 et 10 peut donc être considéré comme nouveau et inventif (Article 33(2)(3) PCT).

Les revendications 2 à 5, 7 à 9 et 11 dépendent des revendications 1, 6 et 10 respectivement et remplissent donc également les conditions de nouveauté et activité inventive.

Translation

PATENT COOPERATION TREATY

PCT/FR2003/003360



# PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CLI 01/003B	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/003360	International filing date ( <i>day/month/year</i> ) 13 novembre 2003 (13.11.2003)	Priority date ( <i>day/month/year</i> ) 19 novembre 2002 (19.11.2002)
International Patent Classification (IPC) or national classification and IPC C22C 38/54, C21D 8/02		
Applicant INDUSTEEL CREUSOT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets, including this cover sheet.  
☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of \_\_\_\_\_ sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 10 mai 2004 (10.05.2004)	Date of completion of this report 12 August 2004 (12.08.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

PCT/FR2003/003360

## I. Basis of the report

## 1. With regard to the elements of the international application:\*

- ☒ the international application as originally filed
- ☒ the description:  
pages \_\_\_\_\_ 1-10 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages \_\_\_\_\_ 1-11 \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, as amended (together with any statement under Article 19  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
pages \_\_\_\_\_, as originally filed  
pages \_\_\_\_\_, filed with the demand  
pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

## 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

## 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/FR 05/03360

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims	1-11	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

## 2. Citations and explanations

This report makes reference to the following documents:

D1: US-A-4 171 233

D2: WO 96/22396 A

D3: EP-A-0 881 306

D4: PATENT ABSTRACTS OF JAPAN, Vol. 018, No. 145 (C-1178), 10 March 1994 & JP 05 320749 A

The invention relates to a steel workpiece having a weldable structure and a bainitic and/or martensitic microstructure, the steel composition being chosen to improve the ease of annealing without reducing weldability.

Although the steel composition as per claim 1 overlaps with that of the building steels disclosed by documents D1 to D3, this overlap corresponds to a narrow selection which a person skilled in the art would not have made proceeding from those documents. The examples and preferred embodiments described in those documents do not prompt a person skilled in the art to combine the Si and B contents as claimed in order to achieve a good compromise between weldability and ease of annealing (see D1, column 5; the table; column 6 to column 8; column 10; table IV;

D2, pages 8-11; D3, page 4, lines 2-43; page 5; the examples). Those documents do not relate to the question of the weldability of steels containing 0.40-0.50% carbon and do not disclose the manufacturing processes as per claims 6 and 10.

The subject matter of claims 1, 6 and 10 can therefore be considered novel and inventive (PCT Article 33(2) and 33(3)).

Claims 2-5, 7-9 and 11 are dependent on claims 1, 6 and 10, respectively, and therefore also meet the novelty and inventive step requirements.



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